

Work Order ID 99824

April-12-13 7:53:51 AM

99824

Page 1

Item ID: D4005-11

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Finishing Strip

8

Start Date: 4/11/13

Start Qty: 4.00

4

Cust Item ID:

Required Date: 4/11/13

Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan: ML5

Date: 13-04-16

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D4005	B
-------	---

100 0.00

100

Waterjet

Memo

0.00

8
DAS
05
9-89

13.04.20

FLOW CNC Waterjet

1-Cut as per Dwg
Dwg Rev: B
Prog Rev: B

2-Deburr if necessary

110 0.00

110

QC

Quality Control

Memo

0.00

8
DAS
05
9-89

13.04.20

DQA: _____ Date: _____

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS								
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>							
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>							
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>							
Part No. _____			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>								
NCR No. _____														
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description		Sign & Date	Verification	QC Inspector			
Doc/Data														
Equip/Tooling														
Operator														
Material														
Setup														
Other														
Process														
Supplier														
Training														
Unapproved														
FAULT CATEGORY														
Landing Gear	Bending			General			Grain			Ovalized		Pressure/Forced		
	Centre Not Concentric to O/S			BOM/Route			Hardware			Over/Under tolerance		Temperature/Cure		
	Cracks			Broken/Damaged			Inspection Incomplete			Part Incorrect		Weld		
	Crushed/Crimped			Burrs			Instructions Incomplete/Unclear			Part Lost/Missing		Wrong Stock Pulled		
	Cuffs			Contamination			Maintenance			Part Moved				
	Heat Treat			Countersink			Mislabeled			Positioned Wrong				
	Inspection Strip in Tube			Cut Too Short			Misread			Power Loss/Surge				
	Ripples in Bend			Drill Holes			Offset							
	Torque Waves in Extrusion			Drawing			Out of Calibration							
	Turning Sequence			Finish			Out of Sequence							
	Wave/Twist in Tube			Folio			Outside Dimensions							

Work Order ID 99824

April-12-13 7:53:51 AM

99824

Page 2

Item ID: D4005-11

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Finishing Strip

Stop

NS2

Start Date: 4/11/13 Start Qty: 4.00

4

Cust Item ID:

Required Date: 4/11/13 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC8- Inspect parts - second check

0.00

DAS
16

13/04/22

120

QC

Quality Control

130

Bend as per dwg

0.00

SB
13/04/22

130

Brake NC

Brake NC

Memo

0.00

140

QC5- Inspect part completeness to step on W/O

0.00

DAS
16

13/04/22

140

QC

Quality Control

Memo

x8

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order:	DISPOSITION				AGAINST DEPARTMENT/PROCESS				
Part No:	Rework	Scrap	Use-as-is	Work Order Update	Skid-tube	Machining	Crosstube	Water Jet	Engineering
NCR No:					Thermoforming	Large Fab	Small Fab	Prod. Eng. Coor.	Quality
					Composite		Rec/Store/Packaging	Supplier	Other
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									
FAULT CATEGORY									
Landing Gear	General								
	Bending	Bend	Grain	Ovalized	Pressure/Forced				
	Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure				
	Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld				
	Crushed/Crimped	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled				
	Cuffs	Contamination	Maintenance	Part Moved					
	Heat Treat	Countersink	Mislabeled	Positioned Wrong					
	Inspection Strip in Tube	Cut Too Short	Offset	Power Loss/Surge	Other				
	Ripples in Bend	Drill Holes	Out of Calibration						
	Torque Waves in Extrusion	Drawing	Out of Sequence						
	Turning Sequence	Finish	Outside Dimensions						
	Wave/Twist in Tube	Folio							

Work Order ID 99824

April-12-13 7:53:51 AM

99824

Page 3

Item ID: D4005-11

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Finishing Strip

Stop

NS2

Start Date: 4/11/13 Start Qty: 4.00

4

Cust Item ID:

Required Date: 4/11/13 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

Chemical Conversion Coat per QSI005 4.1

0.00

150

HandFinish

Memo

0.00

8 13425

Hand Finishing

160

QC7-Inspect Chemical Conversion Coat

0.00

160

QC

Memo

0.00

Quality Control

AS
27
88

8

134.25

170

Identify as per dwg & Stock Location:

0.00

170

Packaging

Memo

87243A

0.00

Packaging

134.25

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order:				DISPOSITION		AGAINST DEPARTMENT/PROCESS									
				Rework	Skid-tube	Crosstube	Water Jet	Engineering							
				Scrap	Machining	Small Fab	Prod. Eng. Coor.	Quality							
				Use-as-is	Thermoforming	Finishing	Rec/Store/Packaging	Other							
				Work Order Update	Large Fab	Composite	Supplier								
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector					
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions							<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Other			<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	

Work Order ID 99824

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99824

Page 4

Item ID: D4005-11

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Finishing Strip

Stop

NS2

Start Date: 4/11/13 Start Qty: 4.00

4

Cust Item ID:

Required Date: 4/11/13 Req'd Qty: 4.00

4

Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180 *180*	QC21- Final Inspection - Work Order Release	0.00							<i>13/5/6</i>
QC Quality Control	Memo	0.00							<i>MF 13-4-29</i>

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order:			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
Part No.	Rework	Scrap	Skid-tube	Crosstube	Water Jet	Engineering					
NCR No.	Use-as-is	Thermoforming	Machining	Small Fab	Prod. Eng. Coor.	Quality					
	Work Order Update		Large Fab	Finishing	Rec/Store/Packaging	Other					
			Composite	Supplier							
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear			General								
Bending	Bend	Grain	Ovalized	Pressure/Forced							
Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure							
Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld							
Crushed/Crimped	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled							
Cuffs	Contamination	Maintenance	Part Moved								
Heat Treat	Countersink	Mislabeled	Positioned Wrong								
Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge								
Ripples in Bend	Drill Holes	Offset	Other								
Torque Waves in Extrusion	Drawing	Out of Calibration									
Turning Sequence	Finish	Out of Sequence									
Wave/Twist in Tube	Folio	Outside Dimensions									

Picklist Print

April-12-13 7:53:54 AM

Page 1

Work Order ID: 99824

99824
D4005-11

Parent Item: D4005-11

Parent Item Name: Finishing Strip

Start Date: 4/11/13

Required Date: 4/11/13

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP rev A 10.01.27 New issue Prelim EC verified by:DD IPP Rev:B
10.05.03 as per ECN10-562 DD verified by:EC IPP Rev:C 12.03.07 as
per dwg rev.b DD verf: EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.032		Purchased		No		100	sf	639.6522	0.303	1.27579	0.121	4/13/20	

M2024T3S 032

2024-T3 .032 sheet

Location	Loc Qty	Loc Code
MAT022	639.6522	
118243	32.4962	
118523	141	
121309	68.656	
123096	27.6	
123574	81.9	
124987	288	

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order:	DISPOSITION				AGAINST DEPARTMENT/PROCESS														
Part No.:	Rework	Scrap	Use-as-is	Work Order Update	Skid-tube	Machining	Thermoforming	Large Fab	Crosstube	Small Fab	Finishing	Composite	Water Jet	Prod. Eng. Coor.	Rec/Store/Packaging	Supplier	Engineering	Quality	Other
NCR No.:																			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance		Initial Chief Eng	Action Description			Sign & Date	Verification		QC Inspector						
Doc/Data																			
Equip/Tooling																			
Operator																			
Material																			
Setup																			
Other																			
Process																			
Supplier																			
Training																			
Unapproved																			
FAULT CATEGORY																			
Landing Gear	General				General				General				General						
	Bending	Bend	Grain	Ovalized	Pressure/Forced														
	Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure														
	Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld														
	Crushed/Crimped	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled														
	Cuffs	Contamination	Maintenance	Part Moved															
	Heat Treat	Countersink	Mislabeled	Positioned Wrong															
	Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge	Other														
	Ripples in Bend	Drill Holes	Offset																
	Torque Waves in Extrusion	Drawing	Out of Calibration																
	Turning Sequence	Finish	Out of Sequence																
	Wave/Twist in Tube	Folio	Outside Dimensions																

DART AEROSPACE LTD	Work Order:	99824
Description: Finishing Strip	Part Number:	D4005-11
Inspection Dwg: D4005	Rev: X B	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

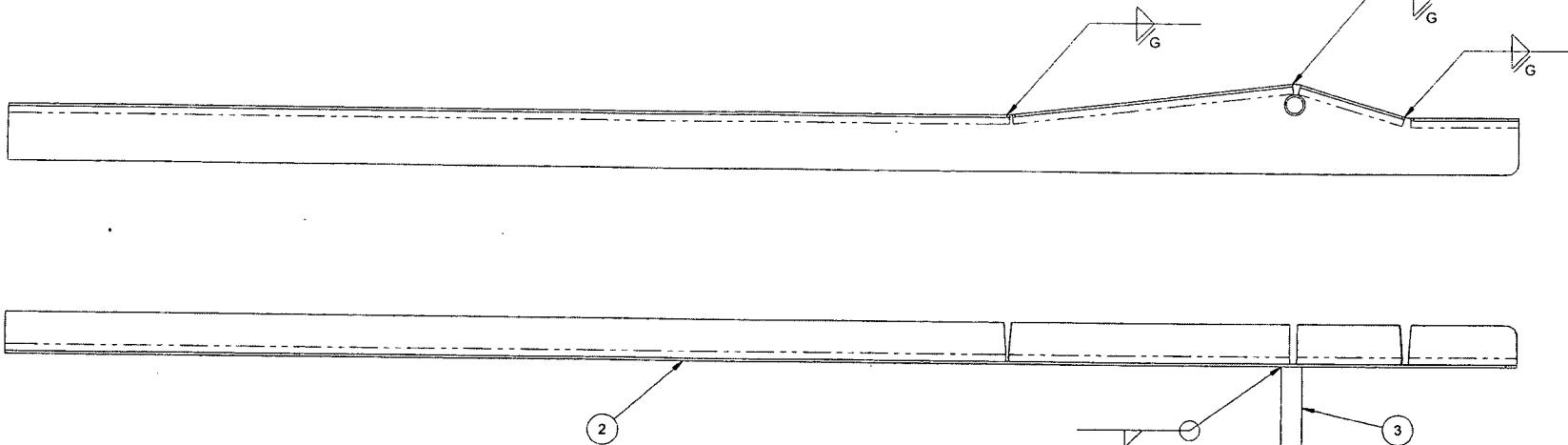
Measured by:	<i>W.W.</i>	Audited by:	<i>DAS</i>	Preliminary Approval:	N/A
Date:	15.04.20	Date:	16/04/20	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	10.08.03	New Issue	KJ	

ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	JOHN CAMERON AVIATION PART NUMBER
1	X	D4005-041	FORWARD FLOOR GUTTER	JCA-M47-2-22
2	1	D4005-13	ANGLE	
3	1	D4003-13	TUBE	

SEARCHED
INDEXED
FILED
ENCLOSURE
UNCONTROLLED COPY
SUBJECT TO APPROVAL
APPROVED

W.C. DESIGN
NO 99824 MCL
13-04-16



D4005-041 FORWARD FLOOR GUTTER

NOTES:

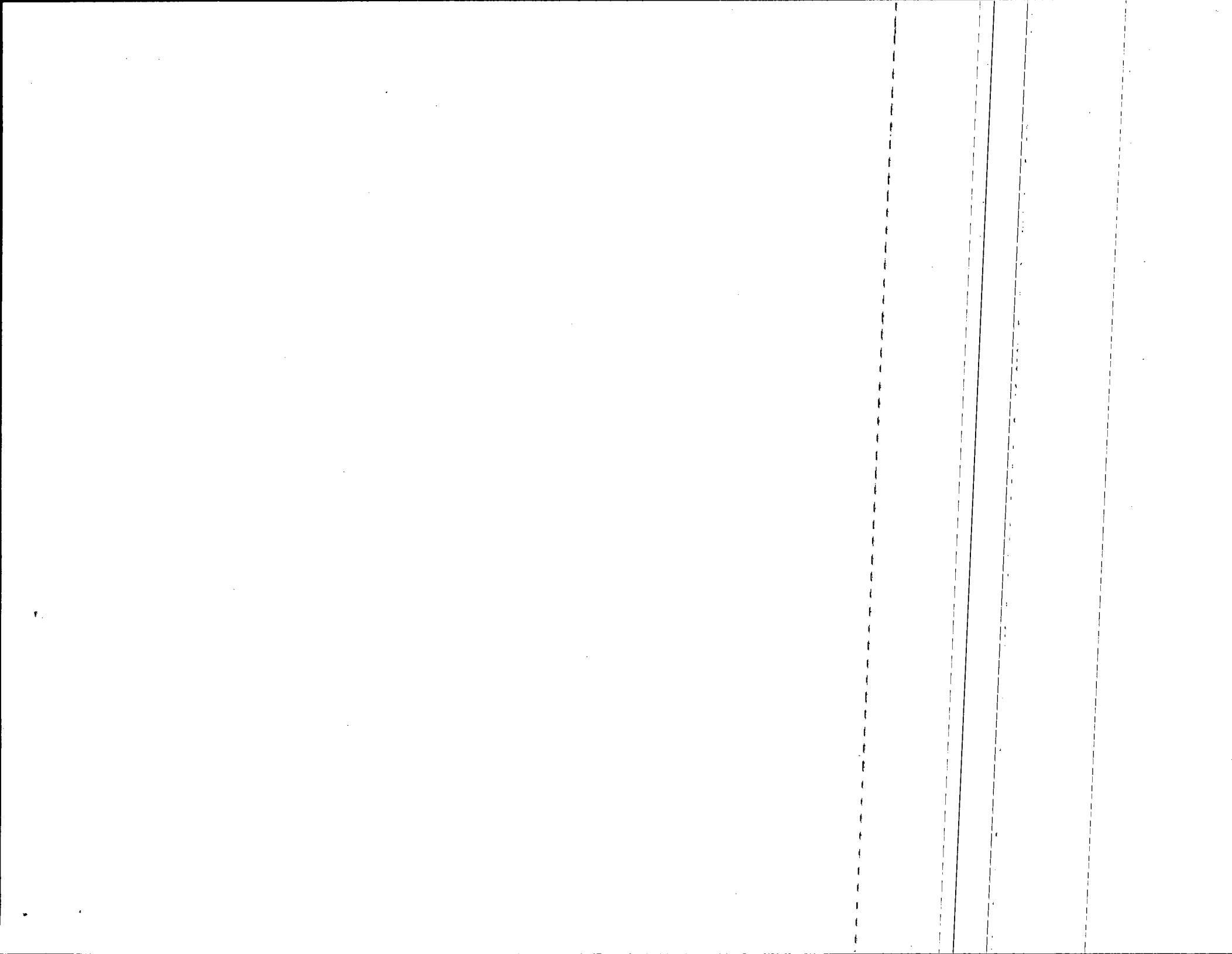
- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "ANSI 61 GREY" (4.3.5.15) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.22 lbs
- 8) WELD PER DART QSI 004

8 1 7 1 6 1 5 1 4 1 3 1 2 1 1

B	ADD TOOLING HOLE, ZN C7-3	11.06.06
A	NEW ISSUE	10.02.05
REV.	DESCRIPTION	BY DATE
DESIGN	51	DART AEROSPACE LTD
DRAWN	51	HAWKESBURY, ONTARIO, CANADA
CHECKED	13	DRAWING NO.
MFG. APPR.	13	REV. B
APPROVED	13	D4005 SHEET 1 OF 15
DE APPR.	13	TITLE
DATE	11.06.06	SCALE
		RESTRANT
		NTS

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RELEASED
2012-03-02
WIP



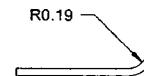
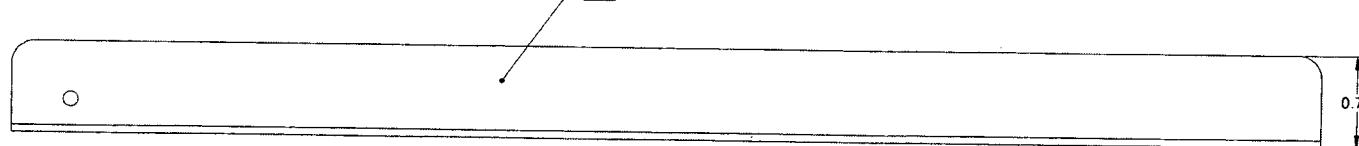
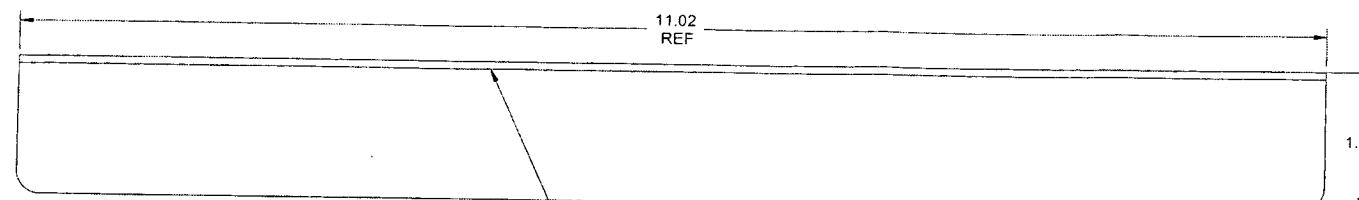
99824

DART AEROSPACE
PART NUMBER

JOHN CAMERON AVIATION
PART NUMBER

D4005-1

JCA-M47-2-03



D4005-1 REAR RESTRAINT ANGLE GUTTER

RELEASED
2012-03-02
NP

NOTES:

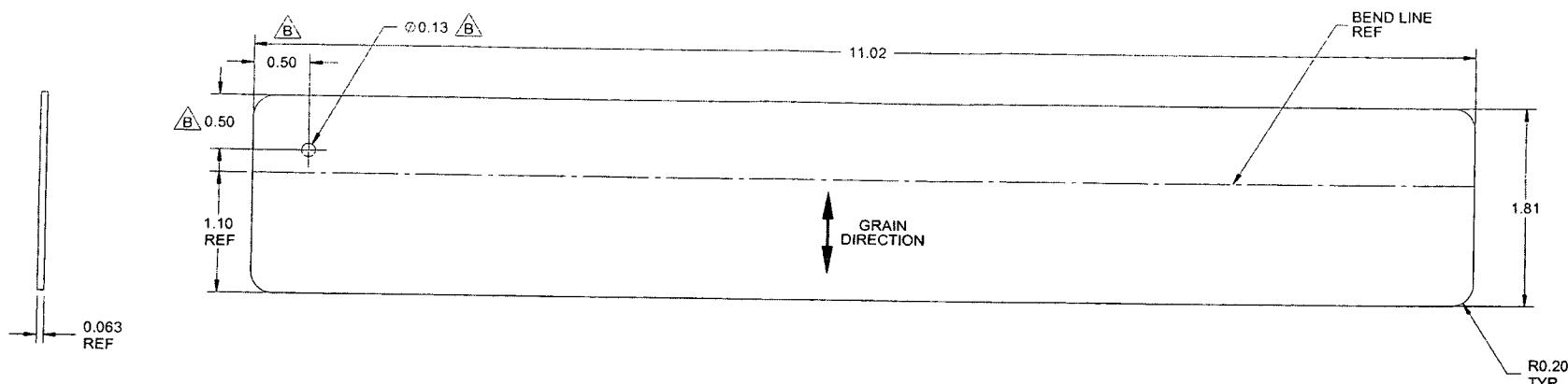
- 1) MATERIAL: MADE FROM D4005-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT "ANSI 61 GREY" (4.3.5.15) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.12 lbs
- 8) COVER THIS SURFACE WITH D2856-100-11 ABRASION STRIP. TRIM EXCESS

8 7 6 5 4 3 2 1

DESIGN	<i>AB</i>	DART AEROSPACE LTD	
DRAWN	<i>AB</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AB</i>	DRAWING NO.	
MFG. APPR.	<i>AB</i>	D4005	
APPROVED	<i>AB</i>	REV. B	
DE APPR.	<i>AB</i>	SHEET 2 OF 15	
DATE	11.06.06	TITLE	
		SCALE	
		RESTRANT	
		NTS	

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99824



D4005-1F FLAT PATTERN

RELEASED
2012-03-02
NP

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.063 THICK
PER QQ-A-250/4 OR AMS-QQ-A-250/4
OR AMS 4037 OR ASTM B209
REF DART SPEC M2024T3S.063
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.12 lbs

8 7 6 5 4 3 2 1

DESIGN	<i>AB</i>	DART AEROSPACE LTD
DRAWN	<i>AB</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>AB</i>	DRAWING NO. D4005
MFG. APPR.	<i>AB</i>	REV. B
APPROVED	<i>AB</i>	SHEET 3 OF 15
DE APPR.	<i>AB</i>	TITLE RESTRAINT
DATE	11.06.06	SCALE NTS

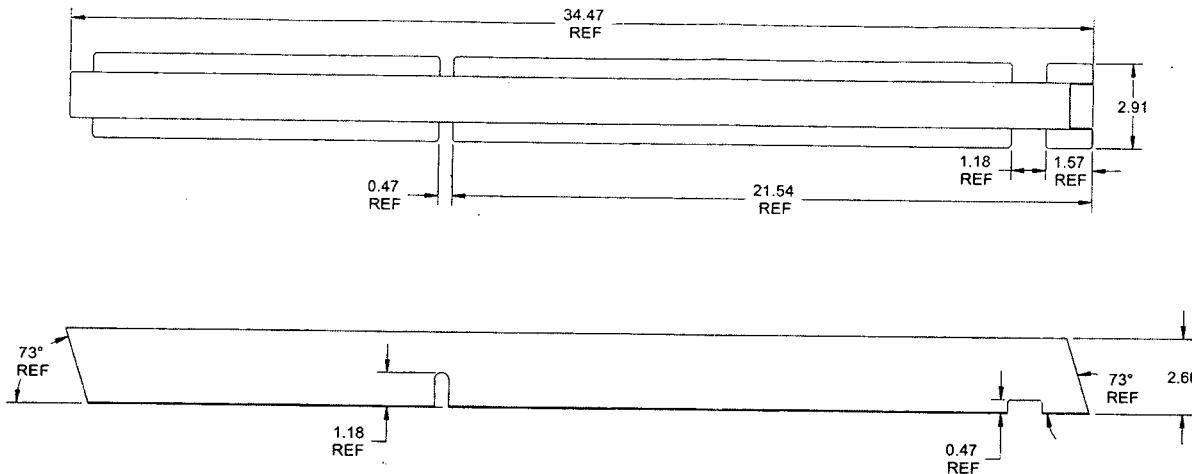
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A

99824

DART AEROSPACE
PART NUMBER
D4005-3

JOHN CAMERON AVIATION
PART NUMBER
JCA-M47-2-US



D4005-3 FORWARD RESTRAINT BEAM

RELEASED
2012-03-02
ND

NOTES:
 1) MATERIAL: MADE FROM D4005-3F
 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 POWDER COAT "ANSI 61 GREY" (4.3.5.15) PER DART QSI 005 4.3
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
 7) WEIGHT: 1.01 lbs

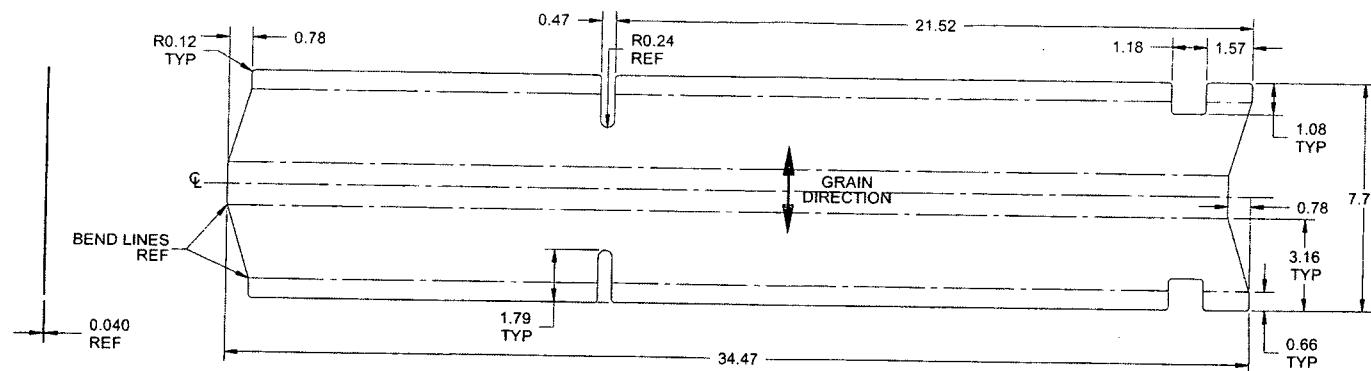
8 7 6 5 4 3 2 1

DESIGN	<i>BS</i>	DART AEROSPACE LTD
DRAWN	<i>BS</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>BS</i>	DRAWING NO.
MFG. APPR.	<i>BS</i>	REV. B
APPROVED	<i>BS</i>	D4005 SHEET 4 OF 16
DE APPR.	<i>BS</i>	TITLE
DATE	11.06.06	SCALE NTS

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1

99824



D4005-3F FLAT PATTERN

RELEASED
2012-03-03
MM

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.040 THICK
PER QQ-A-250/4 OR AMS-QQ-A-250/4
OR AMS 4037 OR ASTM B209
REF DART SPEC M2024T3S.040
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.01 lbs

8

7

6

5

4

3

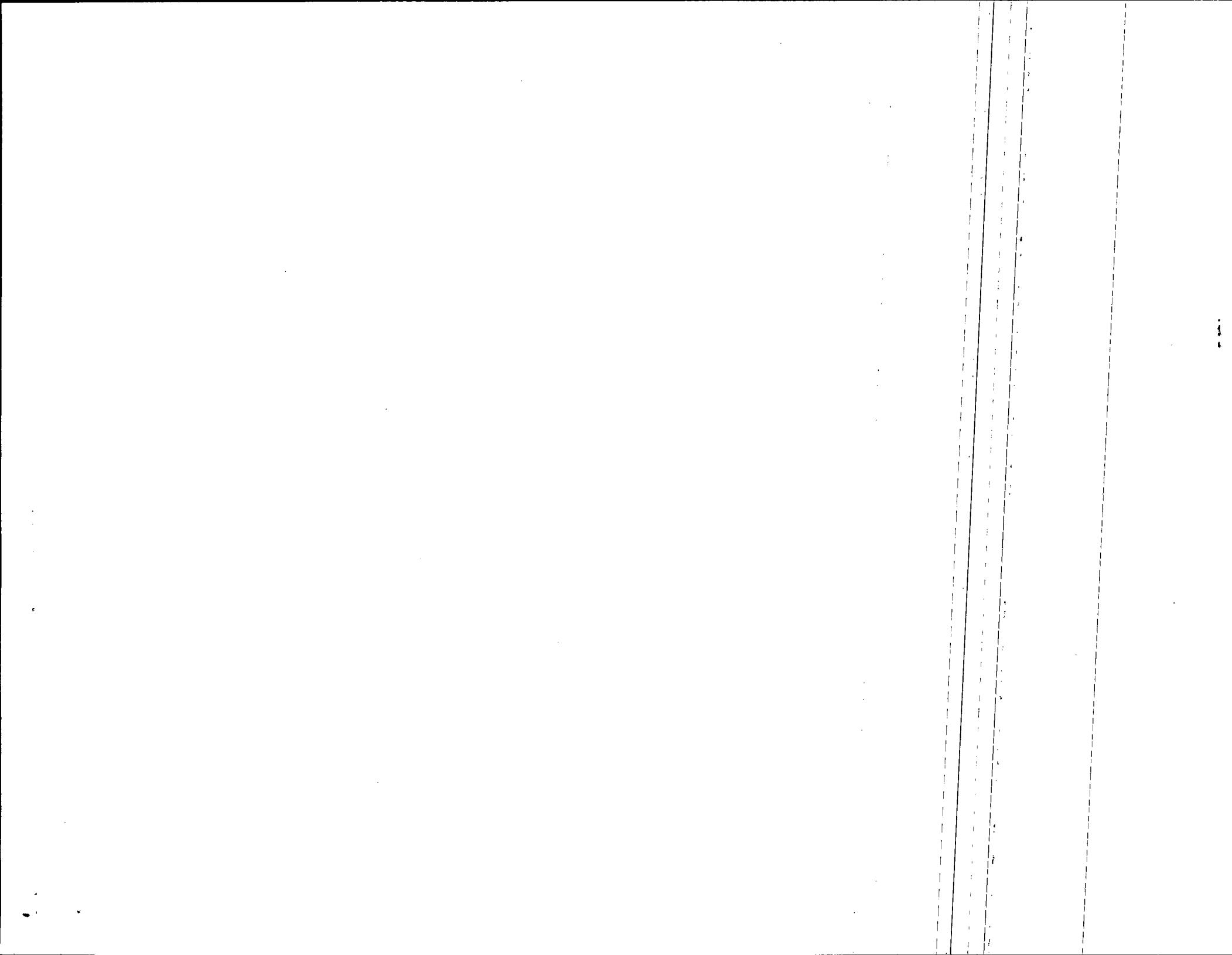
2

1

DESIGN	<i>AB</i>	DART AEROSPACE LTD	
DRAWN	<i>BB</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>BB</i>	DRAWING NO.	
MFG. APPR.	<i>EE</i>	REV. B	
APPROVED	<i>MO</i>	D4005	
DE APPR.	<i>MM</i>	SHEET 5 OF 15	
DATE	11.06.06	TITLE RESTRAINT SCALE NTS	

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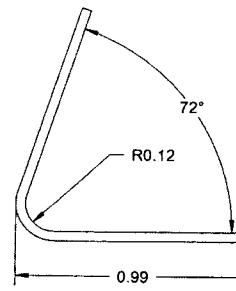
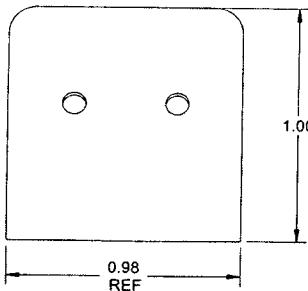
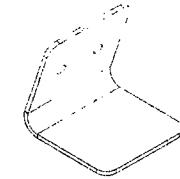
A



DART AEROSPACE
PART NUMBER
D4005-5

JOHN CAMERON AVIATION
PART NUMBER
JCA-M47-2-06

99824



D4005-5 ANGLE

NOTES:

- 1) MATERIAL: MADE FROM D4005-5F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.01 lbs

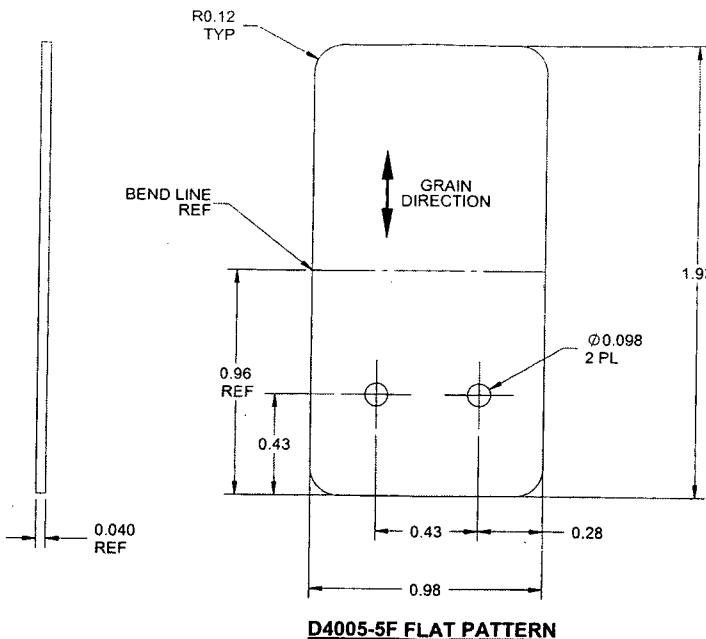
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DESIGN	51	DART AEROSPACE LTD
DRAWN	AS	HAWKESBURY, ONTARIO, CANADA
CHECKED	AS	DRAWING NO.
MFG. APPR.	AS	REV. B
APPROVED	AS	D4005 SHEET 6 OF 15
DE APPR.	AS	TITLE
DATE	11.06.06	SCALE
		NTS

RELEASED
2012-03-02
NP

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99824



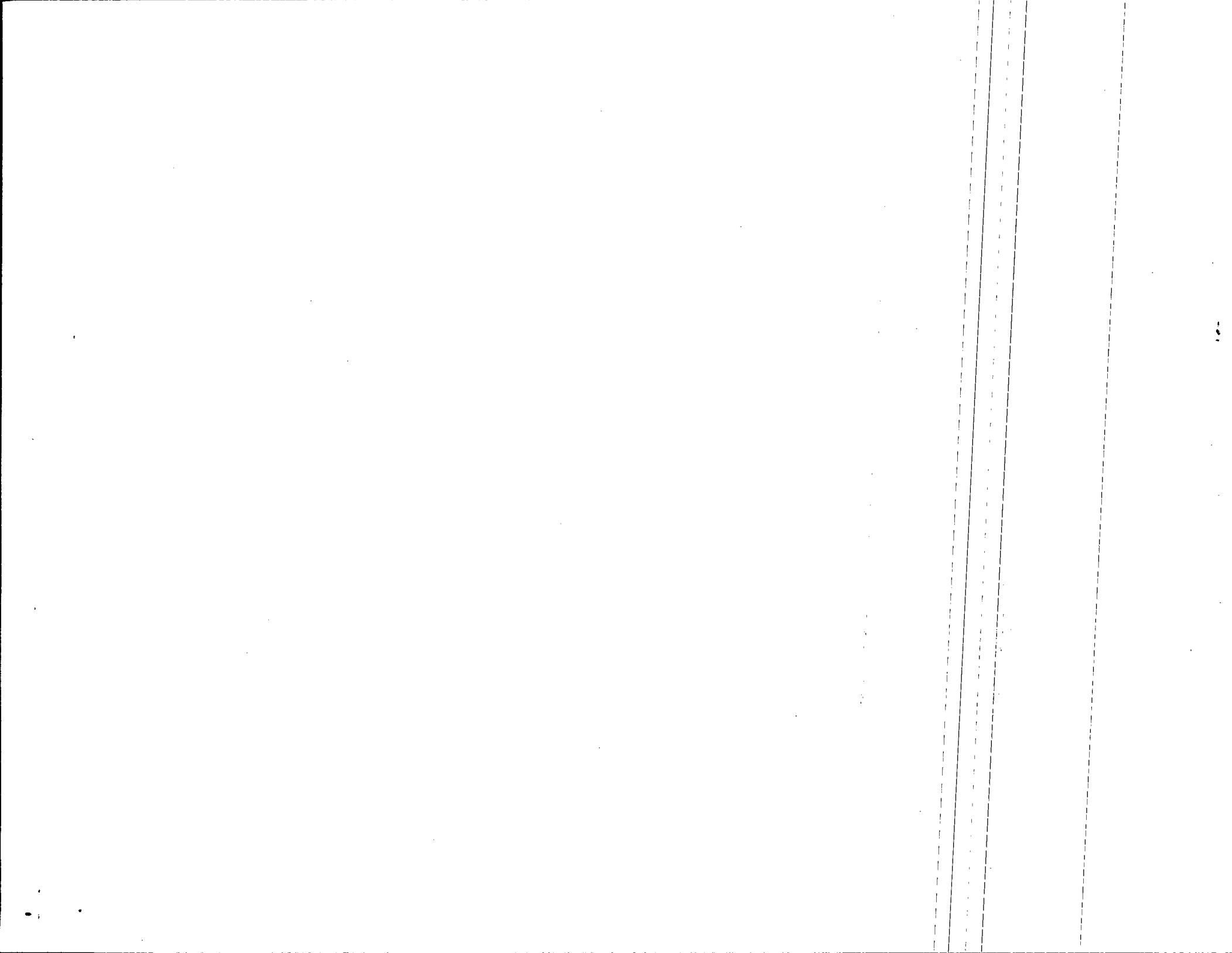
NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.040 THICK
PER QQ-A-250/4 OR AMS-QQ-A-250/4
OR AMS 4037 OR ASTM B209
REF DART SPEC M2024T3S.040
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.01 lbs

8 7 6 5 4 3 2 1

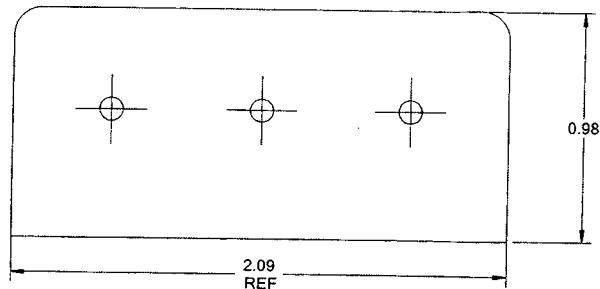
DESIGN	<i>AB</i>	DART AEROSPACE LTD	
DRAWN	<i>AB</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>AB</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>AB</i>	D4005	SHEET 7 OF 15
APPROVED	<i>AB</i>	TITLE	SCALE
DE APPR.	<i>AB</i>	RESTRAINT	NTS
DATE	11.06.06	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN AUTHORIZATION FROM DART AEROSPACE LTD.	

2012-03-02
AB

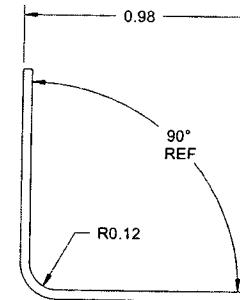


DART AEROSPACE
PART NUMBER
D4005-7

JOHN CAMERON AVIATION
PART NUMBER
JCA-F447-2-07



D4005-7 ANGLE



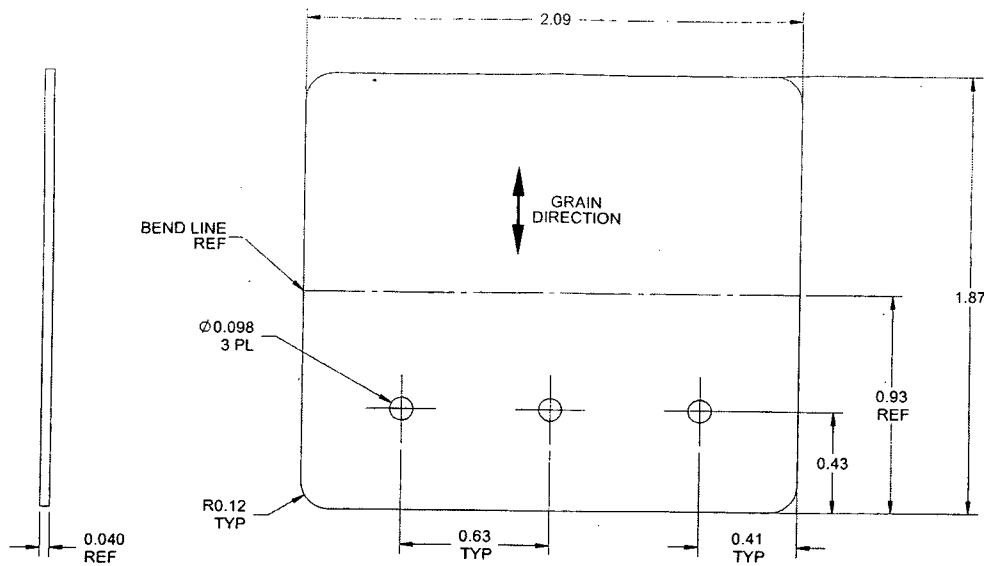
NOTES:
1) MATERIAL: MADE FROM D4005-7F
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
7) WEIGHT: 0.02 lbs

8 7 6 5 4 3 2 1

2012-03-02
J.P.

DESIGN	<i>BS</i>	DART AEROSPACE LTD	
DRAWN	<i>BS</i>	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>BS</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>BS</i>	D4005	SHEET 8 OF 15
APPROVED	<i>BS</i>	TITLE	SCALE
DE APPR.	<i>BS</i>	RESTRAINT	NTS
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99829



D4005-7F FLAT PATTERN

RELEASED
2012-03-02
JW

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.040 THICK
PER QQ-A-250/4 OR AMS-QQ-A-250/4
OR AMS 4037 OR ASTM B209
REF DART SPEC M2024T3S.040
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.02 lbs

8 7 6 5 4 3 2 1

DESIGN	551	DART AEROSPACE LTD
DRAWN	BS	HAWKESBURY, ONTARIO, CANADA
CHECKED	BS	DRAWING NO.
MFG. APPR.	BS	REV. B
APPROVED	BS	D4005 SHEET 9 OF 15
DE APPR.	BS	TITLE
DATE	11.06.06	SCALE
		NTS

RESTRAINT

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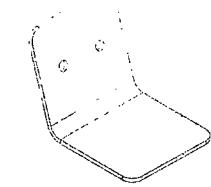
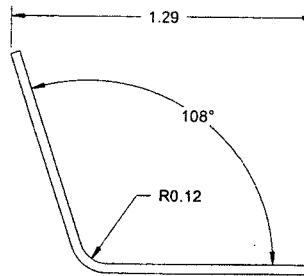
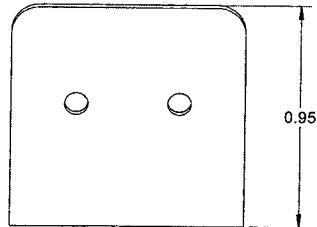


a9829

DART AEROSPACE
PART NUMBERJOHN CAMERON AVIATION
PART NUMBER

D4005-9

JCA-M47-2-08



D4005-9 ANGLE

NOTES:

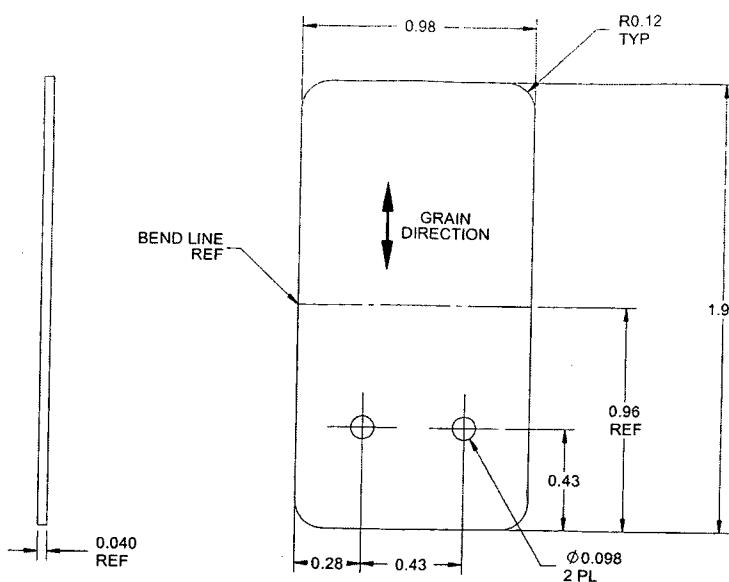
- 1) MATERIAL: MADE FROM D4005-9F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.01 lbs

8 7 6 5 4 3 2 1

DESIGN	<i>BS</i>	DART AEROSPACE LTD		
DRAWN	<i>BS</i>	HAWKESBURY, ONTARIO, CANADA		
CHECKED	<i>BS</i>	DRAWING NO.	REV. B	
MFG. APPR.	<i>BS</i>	D4005		SHEET 10 OF 15
APPROVED	<i>BS</i>	TITLE	SCALE	
DE APPR.	<i>BS</i>	RESTRAINT	NTS	
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RELEASED
2012-03-02
JW

091824



D4005-9F FLAT PATTERN

RELEASED
11 2012-03-02
JMP

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.040 THICK
PER QQ-A-250/4 OR AMS-QQ-A-250/4
OR AMS 4037 OR ASTM B209
REF DART SPEC M2024T3S.040
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.01 lbs

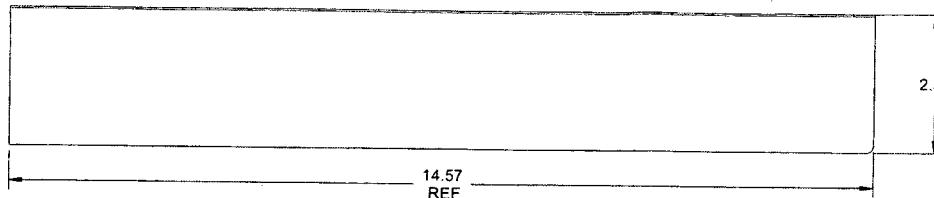
8 7 6 5 4 3 2 1

DESIGN	<i>AB</i>	DART AEROSPACE LTD			
DRAWN	<i>AB</i>	HAWKESBURY, ONTARIO, CANADA			
CHECKED	<i>AB</i>				
MFG. APPR.	<i>AB</i>	DRAWING NO.			
APPROVED	<i>AB</i>	D4005			
DE APPR.	<i>AB</i>	REV. B			
DATE	11.06.06	SHEET 11 OF 15			
TITLE RESTRAINT					
SCALE NTS					
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DART AEROSPACE
PART NUMBER
D4005-1

JOHN CAMERON AVIATION
PART NUMBER
JCA-M47-2-12

99824



D4005-11 FINISHING STRIP

2012-03-02

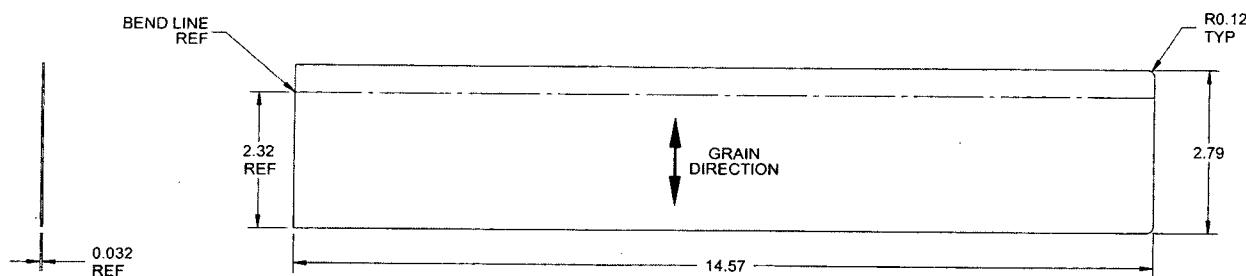
NOTES:
1) MATERIAL: MADE FROM D4005-11F
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
7) WEIGHT: 0.13 lbs

8 7 6 5 4 3 2 1

DESIGN	651	DART AEROSPACE LTD	
DRAWN	AS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	AS	DRAWING NO.	
MFG. APPR.	AS	REV. B	
APPROVED	AS	D4005	
DE APPR.	AS	SHEET 12 OF 15	
DATE	11.06.06	TITLE	
		SCALE	
		RESTRANT	
		NTS	

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99824



D4005-11F FLAT PATTERN

NOTES:

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.032 THICK
PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209
REF DART SPEC M2024T3S.032
- 2) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.032 THICK
PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209
REF DART SPEC M6061T6S.032
- 3) MATERIAL: 5052-H32 ALUMINUM SHEET
PER QQ-A-250/8 OR AMS-QQ-A-250/8 OR AMS 4016 OR ASTM B209
REF DART SPEC M5052H32S.032
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.13 lbs

8 7 6 5 4 3 2 1

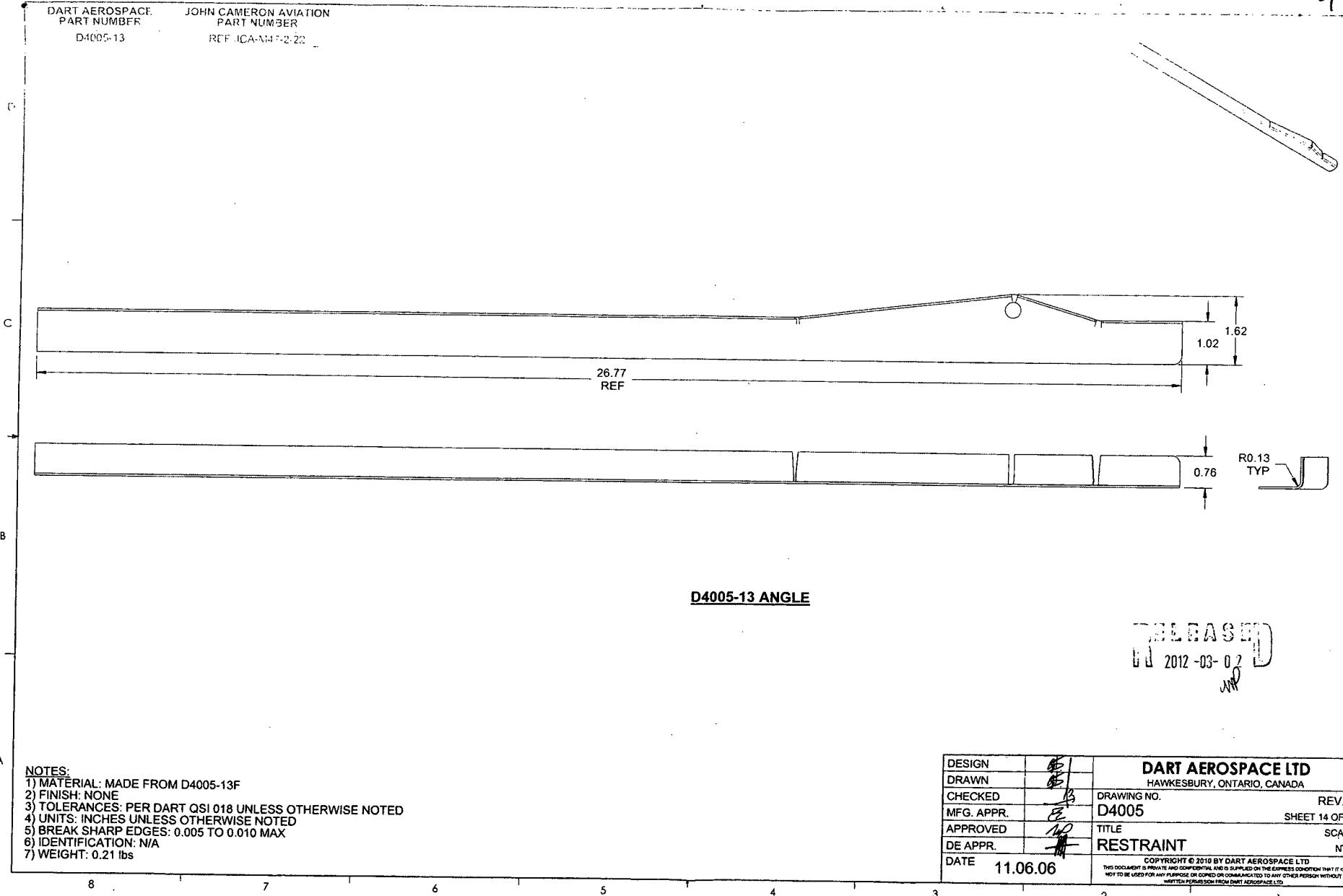
DESIGN	<i>AB</i>	DART AEROSPACE LTD
DRAWN	<i>AB</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>AB</i>	DRAWING NO.
MFG. APPR.	<i>AB</i>	REV. B
APPROVED	<i>AB</i>	D4005
DE APPR.	<i>AB</i>	SHEET 13 OF 15
DATE	11.06.06	SCALE
		NTS
		RESTRANT
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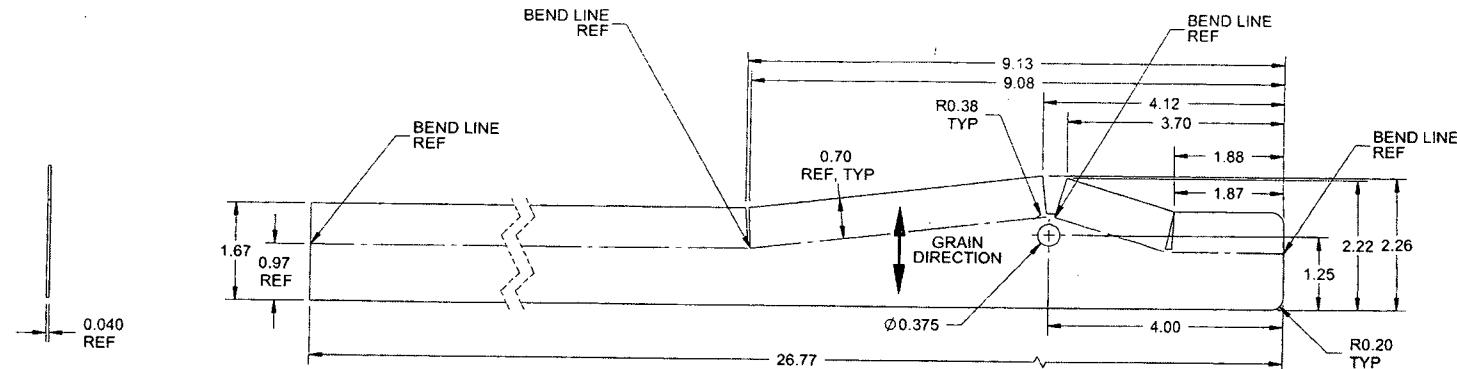
DART AEROSPACE
PART NUMBER
D4005-13

JOHN CAMERON AVIATION
PART NUMBER
REF: JCA-M472-22

99829



99024



D4005-13F FLAT PATTERN

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2012-03-02
MR

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.040 THICK
PER QQ-A-250/11 OR AMS-QQ-A-250/11
OR AMS 4025 OR AMS 4027 OR ASTM B209
REF DART SPEC M6061T6S.040
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.21 lbs

8 7 6 5 4 3 2 1

DESIGN	<i>AB</i>	DART AEROSPACE LTD
DRAWN	<i>AB</i>	HAWKESBURY, ONTARIO, CANADA
CHECKED	<i>AB</i>	DRAWING NO.
MFG. APPR.	<i>AB</i>	REV. B
APPROVED	<i>AB</i>	SHEET 15 OF 15
DE APPR.	<i>AB</i>	TITLE
DATE	11.06.06	SCALE

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